Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	GN Docket No. 25-133
In Re: Delete, Delete, Delete	)	

Comments of QORVO INC.

Introduction

The Commission is requesting to identify "unnecessary rules" that "may stand in the way of deployment, expansion, competition, and technological innovation". Elements of the UWB regulations in Part 15, Subpart F, fit this description.

Repeated waiver requests and grants demonstrate Part 15, Subpart F regulations are unnecessarily restrictive and due for revision

The numerous granted waivers demonstrate that current regulations are unnecessarily restrictive and no longer fit for purpose. The Administration struggles to process the growing volume of similar waiver requests as UWB technology gains market traction, indicating these rules require revision.

The waiver process imposes significant costs and delays that particularly burden startups and entrepreneurs. Even large corporations avoid these procedures to prevent exposing proprietary information to competitors. Meanwhile, the Commission faces mounting resource pressure from processing this backlog of requests. The process for obtaining such waivers involves not only the FCC but also additional federal agencies that must be consulted through the NTIA/IRAC coordination process.

This administrative burden on both private industry and public agencies serves no technical purpose, clearly showing that Part 15, Subpart F needs comprehensive revision.

Delete the minimum bandwidth requirement

§ 15.503 requires an UWB transmitter to have a minimum bandwidth of 500 MHz (or a fractional bandwidth of at least 0.2). It is wasteful to mandate a minimum bandwidth when devices are capable of operating with smaller bandwidths.

Qorvo would therefore like to delete these minimum bandwidth requirements.

Delete the strict power limit on indoor devices

American manufacturers and consumers are at a competitive disadvantage compared to other parts of the world where indoor UWB devices have been allowed 10 dB extra transmit power. In addition, more recent dockets have consider higher building entry loss compared to the original UWB Report and Order.

Qorvo would therefore like to increase the transmit power for indoor devices in § 15.519 to -31.3 dBm/MHz.

Delete the 'hand held' descriptor

The FCC has been increasingly inventive in its interpretation of the 'hand held' descriptor used in the § 15.519 - Technical requirements for hand held UWB systems. The clarification in the KDB 393764 D01 UWB FAQ v02r01 already shows that the application stretches far beyond 'hand held' devices. Together with the deletion of the prohibition of fixed outdoor transmissions, Qorvo would propose deleting this 'hand held' description and requirement to provide for a truly 'universal' UWB device category.

Delete the prohibition of fixed outdoor infrastructure

The original Report and Order recognises that the proposed rules are conservative. In addition, there was a concern that these rules would be used to form communication networks. While the latter has not happened, UWB technology should be allowed to compete with other communication technologies purely on technical and business merits.

UWB ranging and location tracking has gained significant market traction but is hindered by the prohibition on outdoor transmissions. There are many use cases where outdoor application of UWB sensors can be greatly beneficial (EV charging, parking assist, asset tracking, …).

Should fixed outdoor transmitters cause harmful interference, which they won't given the low transmit power levels, it can easily be identified since the transmitter will be fixed.

Qorvo would therefore like to delete this prohibition from § 15.519.

Provide alternatives to the 10-second rule

The UWB rules were created with high-throughput data communications in mind. However, nowadays, that use case is being served by Wi-Fi and Bluetooth, while UWB is predominantly used for ranging and sensing applications. The requirement for an acknowledgment is not appropriate for these applications.

About Qorvo

Qorvo® is a global leader in the development and commercialization of technologies and products for wireless, wired and power markets. Founded in 2015 through the merger of TriQuint Semiconductor and RF Micro Devices, Qorvo has quickly established itself as a key player in the semiconductor industry with most offices and employees located in the U.S., including manufacturing capabilities and research and development. Headquartered in Greensboro, North Carolina, Qorvo employs approximately 8,700 people worldwide as of 2024.

Qorvo is organized into three operating and reportable segments that align our technologies and applications with customers and end markets: High Performance Analog ("HPA"), Connectivity and Sensors Group ("CSG") and Advanced Cellular Group ("ACG").

HPA is a leading global supplier of radio frequency ("RF"), analog mixed signal and power management solutions. CSG is a leading global supplier of connectivity and sensor solutions, with broad expertise spanning ultra-wideband ("UWB"), Matter®, Bluetooth® Low Energy, Zigbee®, Thread®, Wi-Fi®, cellular Internet of Things ("IoT") and microelectromechanical system ("MEMS")-based sensors. ACG is a leading global supplier of cellular RF solutions for smartphones, wearables, laptops, tablets and other devices.

Our business is diversified across mobile devices, infrastructure, power management, connectivity and sensing, defense and aerospace, and automotive. Our products solve our customers' most complex challenges while enhancing performance, improving efficiency, increasing functionality, enabling new form factors and addressing other critical challenges.

We design, develop, manufacture and market our products and solutions for leading U.S. and international OEMs and original design manufacturers ("ODMs"). We also collaborate with leading reference design partners and provide foundry services to defense primes and other defense and aerospace customers.

We are at the forefront of UWB technology development, which is crucial for enabling precise and secure location-based services and communications across various industries. Qorvo's UWB solutions have already proven valuable in over forty vertical markets, driving operational

efficiencies in factories and warehouses, improving worker safety, enabling robot and drone navigation, and powering new user interfaces based on location.

In the Automotive market, our UWB solutions leverage secure ultra-low latency communication and precision location accuracy to enable digital key access and digital key sharing while reducing the risk of "man-in-the-middle," or "relay" attacks possible with legacy technologies. UWB can also enable Child Presence Detection, a safety system designed to detect and alert if a child or pet is accidentally left behind in a vehicle, by leveraging the radar capabilities of the UWB technology.

Respectfully submitted,

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